UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,758	09/26/2003	Jean-Laurent Pradel	FR-AM1888 NP	9320

31684 7590 12/09/2008

ARKEMA INC.
PATENT DEPARTMENT - 26TH FLOOR
2000 MARKET STREET
PHILADELPHIA, PA 19103-3222

EXAMINER	
PATTERSON, MARC A	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
12/09/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/671,758	PRADEL ET AL.	
	Examiner	Art Unit	
	MARC A. PATTERSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-10 and 12-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-10 and 12-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections – 35 USC § 103(a)

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 3 – 10 and 12 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert et al (European Patent No. 1136536). U.S. Patent No. 6,528,587 B2 is used for translation.

With regard to Claims 1, 5, and 12 – 15, Robert et al disclose a coextrusion tie (coextrusion binder; column 1, lines 7 - 9) which comprises 5 to 35% by weight of a polymer itself composed of a blend of 80 to 20% by weight of a metallocene polyethylene with a density of between 0.863 and 0.915 g/cm^3 and 20 to 80% by weight of a non - metallocene LLDPE polyethylene, the blend of polymers being cografted by a carboxylic acid, the content of the grafting monomer in the blend being between 600 and 5,000 ppm, and 95 to 65% by weight of a polyethylene, the total therefore forming 100%, the blend of the polymers being such that its melt flow index is between 1 and 13 g/10 min; the non - metallocene polyethylene has a density of 0.900 g/cm^3 (column 3, lines 7 - 9); the polyethylene is a metallocene polymer (column 4, lines 33 - 34) having a density of 0.863 and 0.915 g/cm^3 (column 4, lines 52 - 55) and is a copolymer of ethylene with a comonomer having 4 carbon atoms (column 2, lines 33 - 36). With regard to Claims 1 - 2, 5, and 12 – 14, Robert fails to disclose a polyethylene homopolymer having a melt flow index of between 3 and 15 g/10 min. However, Robert discloses a melt flow

index of the polyethylene homopolymer which is selected to produce a blend having a melt flow index of between 0.1 and 10 g/min (the blend has a melt flow index of between 0.1 and 10 g/min; column 1, lines 51 - 52).

Therefore, one of ordinary skill in the art would have recognized the utility of varying the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer to obtain the desired melt flow rate of the blend. Therefore, the melt flow rate of the blend would be readily determined by through routine optimization of the melt flow rate of the metallocene polyethylene homopolymer and the blend without the polyethylene homopolymer by one having ordinary skill in the art depending on the desired use of the end product as taught by Robert et al.

It therefore would be obvious for one of ordinary skill in the art to vary the melt flow rate of the metallocene polyethylene homopolymer, thus determining whether the blend has an increase in adhesive strength of 5 to 50% after 8 days, in order to obtain the desired melt flow rate of the blend, since the melt flow rate of the blend would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Robert et al. The polyethylene is a metallocene polymer, as stated above, therefore the adhesive strength of the coextrusion tie is increased by 5 to 50% between the time t=0 corresponding to its application immediately after its extrusion and the time t=8 days.

With regard to Claim 3, Robert et al disclose a grafting monomer comprising maleic anhydride (column 3, lines 14 - 19).

With regard to Claim 4, Robert et al disclose the interchangeable use of metallocene and ethylene alkyl methacrylate copolymer (column 4, lines 26 - 34) and therefore disclose a tie which additionally comprises ethylene / alkyl methacrylate copolymer.

With regard to Claims 6 - 8, Robert discloses a structure comprising the tie directly between a layer of ethylene vinyl alcohol and a layer of polyester (column 2, lines 7 - 18).

With regard to Claims 9 - 10, the structure disclosed by Robert et al is comprised in a container (fuel tank; column 4, lines 65 - 67), therefore a structure.

ANSWERS TO APPLICANT'S ARGUMENTS

3. Applicant's arguments regarding the 35 U.S.C. 103(a) rejection of Claims 1, 3 – 10 and 12 – 14 as being unpatentable over Robert et al (European Patent No. 1136536), of record in the previous Action, have been carefully considered but have not been found to be persuasive for the reasons set forth below.

Applicant argues, on page 5 of the remarks dated November 18, 2008, that Robert et al fails to disclose that the disclosed polyethylene is a metallocene polymer.

However, as stated above, the disclosed polyethylene is a metallocene polymer.

Applicant also argues on page 5 that adhesive strength increase on aging is not recognized by Robert et al as a result effective variable.

However, as stated above, melt flow index of the metallocene polymer is a result effective variable, as it would have been obvious for one of ordinary skill in the art to vary the melt flow index to obtain the disclosed melt flow index of the coextrusion tie.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/
Primary Examiner, Art Unit 1794

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/671,758	PRADEL ET AL.	
	Examiner	Art Unit	
	MARC A. PATTERSON	1794	